D. Hedberg - FYI

Tenneco Minerals
A Tenneco Company

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April 26, 1991

Mr. Don Ostler
Executive Secretary
Bureau of Water Pollution Control
288 North 1460 West
P.O. Box 16690
Salt Lake City, UT 84116-0690

RE: Response to Item No. 3, Notice of Violations and Order Docket No. I91-03

Dear Mr. Ostler:

This letter is in response to item number 3 of the Order contained in the above referenced Notice of Violations and Order, which is as follows:

> Submit within thirty (30) days a detailed implementation plan and schedule, including necessary engineering, hydrologic and geo-technical evaluation, for restoration, remedy and upgrade of the process ponds and storm water conveyance structures and appurtenances.

PROCESS PONDS

Tenneco Minerals has taken and/or plans to take the following actions:

> Tenneco Minerals immediately initiated remedial action following the blast incident by repairing all accessible punctures in the flexible membrane liner (FML) of all three process ponds.
>
> Tenneco Minerals submitted a remedial plan for the damaged process ponds on March 19, 1991, per the Bureau's March 12, 1991 request and prior to the issuance of the March 26, 1991, Notice of Violations and Order. More specific repair details and repair dates were provided in a letter submitted to the Bureau on April 3, 1991, discussed with representatives of the Bureau on April 4 and April 9, 1991, and provided in letters to the Bureau dated April 9 and 16, 1991.

Tenneco Minerals conducted repairs on the damaged process water pond primary FML on April 5, 1991. After repair work, an 80 mil. high density polyethylene liner was installed on top of the original FML. Tenneco Minerals intends to upgrade this pond in the same manner as the barren pond, which is described in Tenneco Minerals' April 9, 1991 letter to the Bureau. As stated in that letter to the Bureau, Tenneco Minerals intends to implement this upgrade in conjunction with the proposed expansion that was described in its December 21, 1990, permit application submittal to the Bureau. This upgrade will coincide with activities contemplated in the proposed expansion.

The barren pond FML repair and upgrade was completed April 19, 1991, as described in Tenneco Minerals' letter dated April 9, 1991, to the Bureau. Sampling of the barren pond clay liner was conducted at eleven locations to verify its integrity and to determine the extent of contaminant migration. The samples are being analyzed for total cyanide, WAD cyanide, gold, silver and zinc. The results will be provided to the Bureau as soon as possible after they are received and compiled, but no later than May 15, 1991.

Per Tenneco Minerals' April 16, 1991 letter to the Bureau, the preg pond will be upgraded in the same manner as the barren pond by April 30, 1991.

STORM WATER CONVEYANCE STRUCTURES AND APPURTENANCES

Tenneco Minerals has taken and/or plans to take the following actions:

Tenneco Minerals has re-established all of the previous storm water diversion ditches to their original configuration and has constructed new diversion ditches as appropriate. These diversion ditches are labeled A through K in the enclosed description and map. The placement of culverts at diversion ditches H and at the B/D intersection remain to be completed. In addition, diversion ditches labeled G and K require additional

work to complete the site drainage. Tenneco Minerals anticipates this work to be completed by May 10, 1991.

Tenneco Minerals has designed all diversion ditches identified in the description and map, with the exception of A and F, to withstand the 10-year, 24-hour storm event, which is 2.3 inches. Diversion ditches A and F will remain after mine reclamation and closure; therefore, they are sized to withstand the 100-year, 24-hour storm event, which is 3.4 inches.

Tenneco Minerals is currently evaluating sizing the storm water diversion structures that will not remain after mine closure to withstand the 100-year, 24-hour storm event as requested in the Bureau's April 18, 1991 letter to Tenneco Minerals and per Tenneco Minerals' April 25, 1991 response to the Bureau. This investigation is expected to be completed as soon as possible and Tenneco Minerals will submit its plan to the Bureau by May 20, 1991.

In order to ensure that the diversion ditches are maintained, Tenneco Minerals' maintenance plan will consist of monthly inspections with inspections conducted daily during storm events and immediately after storm events. A log of the inspections will be maintained in our files. Tenneco Minerals will conduct appropriate maintenance on the storm water diversion structures as indicated by our inspections.

Tenneco Minerals currently intends to convert the sedimentation pond to a containment structure to contain storm water runoff by installing an appropriate thickness of compacted clay liner. This project will be completed after a more detailed analysis of remediation and construction requirements, but in any event no later than October 31, 1991. Tenneco Minerals will provide the Bureau with the details of its plans prior to conducting the work, but no later than June 15, 1991.

In the interim, Tenneco Minerals currently plans to use Emergency Storage Ponds, number 1 and number 2, for use in the event of an emergency overflow to avoid

discharging to the sedimentation pond. These structures were verbally approved by the Bureau on March 19 and 22, 1991, respectively, for use in the event of an emergency overflow situation.

Tenneco Minerals plans to maintain Emergency Storage Pond number 1 as a permanent structure for emergency overflows. Although Tenneco Minerals already received verbal approval from the Bureau for the construction of this pond, Tenneco Minerals will include this structure in its ground water discharge permit application that will be re-submitted to the Bureau for the entire facility by May 31, 1991.

If you have any questions on the above, please call me at (801) 574-3164.

Sincerely,

TENNECO MINERALS COMPANY

Ken A. Kluksdahl
Mine Manager

KAK:bas

Inclosures:

cc: R. Johnson
D. Brannum
M. Keller - Van Cott, Bagley
B. Buck - JBR Consultants
G. Toland

Tenneco Minerals

D. Delling
J. Badger
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M. King

DITCH A - This is the main diversion ditch for the upper Padre Pit haul road. This ditch was installed in October 1990.

Ditch dimensions are:

a. V-Shape - 1.5' x 4' wide
b. 1100 linear feet
c. Average slope - 11.8%

DITCH B - This is the main diversion ditch for the collection of runoff below Padre Pit and combines with the north diversion ditch around leach pad 2. This ditch was completed on April 24, 1991.

Ditch dimensions are:

a. V-Shape - 1.5' x 4' wide
b. 1100 linear feet
c. Average slope - 10.9%

DITCH C - This is a diversion ditch positioned below the Padre topsoil pile. This ditch was installed in October 1990.

Ditch dimensions are:

a. V-Shape - 1' x 3' wide
b. 420 linear feet
c. Average slope - 4.8%

DITCH D - This is the leach pad 2 north perimeter diversion ditch. This ditch was installed in November 1990 and has been lengthened with incremental expansions of leach pad 2.

Ditch dimensions are:

a. V-Shape - 1.5' x 4' wide
b. 1800 linear feet
c. Average slope - 3.6%

DITCH E - This is the leach pad 2 south and east perimeter diversion ditch. This ditch was recently installed.

Ditch dimensions are:

a. V-Shape - 1.5' x 4' wide
b. 2040 linear feet
c. Average slope - 8.3%

DITCH F - This is the main diversion ditch for the collection of runoff north and east of leach pad 2. This ditch was installed in March 1990 and was recently reopened. A 200 foot segment of the ditchline remains to be established near topsoil pile.

Ditch dimensions are:

a. Trapezoid Shape - 2' x 5' wide
b. 1100 linear feet
c. Average slope - 1.4%

DITCH G - This is an extension of ditches B,J, and D across the crusher access road. This ditch is in-progress.

Ditch dimensions are:

a. V-Shape - 1.5' x 4' wide
b. 840 linear feet
c. Average slope - 13.1%

DITCH H - This is the main internal site diversion ditch. This ditch was cleaned and restored to operational status on March 29, 1991. A 300 foot segment was recently covered due to the placement of the Buttress Fill on leach pad 1. The road has been sloped against the fill edge as a temporary ditchline.

Ditch dimensions are:

a. V-Shape - 2' x 5' wide
b. 2000 linear feet
c. Average slope - 8.5%

DITCH I - This is the leach pad 1 north and west side perimeter ditch. This ditch was installed in July 1989 and has been lengthened with incremental expansions of leach pad 1.

Ditch dimensions are:

a. V-Shape - 1' x 3' wide
b. 1240 linear feet
c. Average slope - 10.1%

DITCH J - This is the leach pad 1 east side perimeter ditch. This ditch was installed in December 1988.

Ditch dimensions are:

a. V-Shape - 1' x 3' wide
b. 600 linear feet
c. Average slope - 8.3%

DITCH K - This is the process plant/pond area diversion ditch. This ditch was installed in December 1988.

Ditch dimensions are:

a. V-Shape - 1.5' x 4' wide
b. 1300 linear feet
c. Average slope - 3.5%